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TITLE: MANUFACTURE OF FUEL CELL ELECTRODE PLATE

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INVENTOR-INFORMATION:

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ABSTRACT:

PURPOSE: To manufacture by a high yield rate a fuel cell electrode plate wherein a fine hole diameter is controlled while excellent in gas permeability, electric conductivity and mechanical strength.

CONSTITUTION: A 15 to 50wt.% binder of 20 to 50wt.% fiber changeable to carbon fiber or short carbon fiber and 40 to 75wt.% carbonization yield is mixed with 30 to 60wt.% granular blow hole forming agent of 30wt.% or less carbonization yield, to pressure mold this mixture. A thermo-setting resin hardening agent not softened by heat is used as the blow hole forming agent. A grain size of the granular thermo-setting resin hardening agent is 10 to 500 μ m. By carbonizing or graphite-changing a molded unit at 1000 to 3000°C temperature, a fuel cell electrode plate is obtained. Phenol resin or the like is contained in the binder, and a hardening agent of epoxy resin, unsaturated polyester resin, etc., is contained in the thermo-setting resin hardening agent. Since the thermo-setting resin hardening agent is used as the blow hole forming agent, an electrode plate, having a uniform blow hole without softening at molding time and at carbonization or graphite-changing processing time capable of arbitrarily and accurately controlling a fine hole diameter, can be obtained at a high yield rate.

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electrode plate